

# **EXHIBIT 62**

# **Zillow Infringes U.S. Patent No. 7,076,443 (Emens)**

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# U.S. Patent 7,076,443 (Emens) - Overview

(12) **United States Patent**  
**Emens et al.**

(10) **Patent No.:** **US 7,076,443 B1**

(45) **Date of Patent:** **Jul. 11, 2006**

(54) **SYSTEM AND TECHNIQUE FOR  
AUTOMATICALLY ASSOCIATING RELATED  
ADVERTISEMENTS TO INDIVIDUAL  
SEARCH RESULTS ITEMS OF A SEARCH  
RESULT SET**

## FOREIGN PATENT DOCUMENTS

WO WO 98/36366 \* 8/1998

## OTHER PUBLICATIONS

Dialog reference. File 16, 06806736. "Excite@Home  
Launches New Shopping Service for Holiday Shoppers" PR  
Newswire, pp4463, Nov. 15, 1999.\*

\* cited by examiner

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(75) Inventors: **Michael L Emens**, San Jose, CA (US);  
**Reiner Kraft**, Gilroy, CA (US)

(73) Assignee: **International Business Machines  
Corporation**, Armonk, NY (US)

(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 1116 days.

(21) Appl. No.: **09/583,516**

(22) Filed: **May 31, 2000**

## (57) **ABSTRACT**

The resultant search result items from a search engine  
performing an Internet search are associated with similar or  
related advertisements. These associated advertisements,  
once acquired, may be viewed by a user on demand. An

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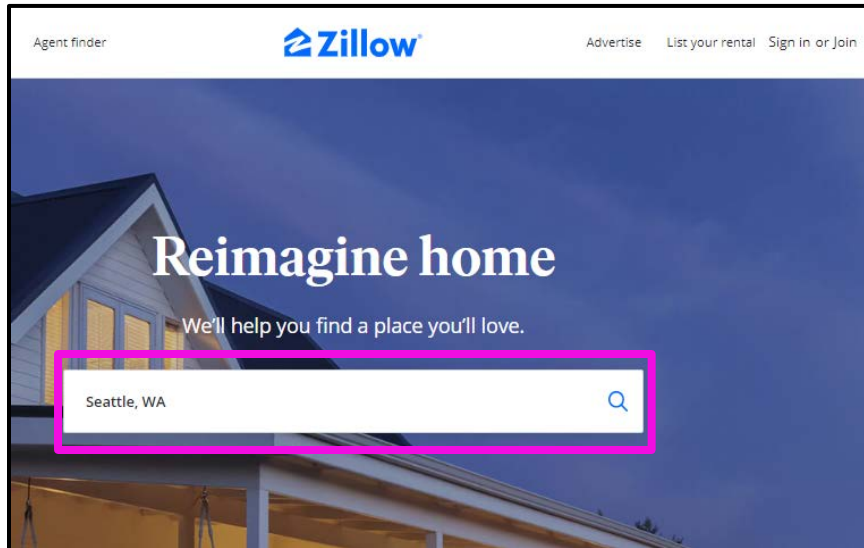
# U.S. Patent 7,076,443 (Emens) – Claim 1

- 1. A method of targeting at least one associated advertisement from an Internet search having access to an information repository by a user, comprising:**
- (a) identifying at least one search result item from a search result of said Internet search by said user;**
  - (b) searching for said at least one associated advertisement within said repository using said at least one search result item;**
  - (c) identifying said at least one associated advertisement from said repository having at least one word that matches said at least one search result item; and**
  - (d) correlating said at least one associated advertisement with said at least one search result item.**

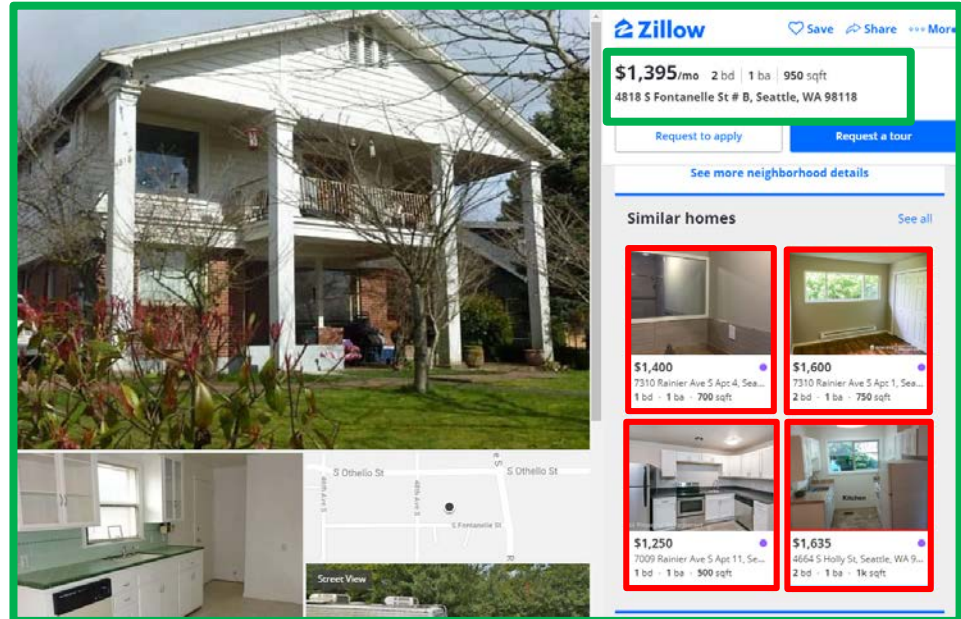
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# U.S. Patent 7,076,443 (Emens) – Claim 1

1. A method of **targeting at least one associated advertisement from an Internet search having access to an information repository by a user**, comprising:



Zillow, <https://www.zillow.com>.



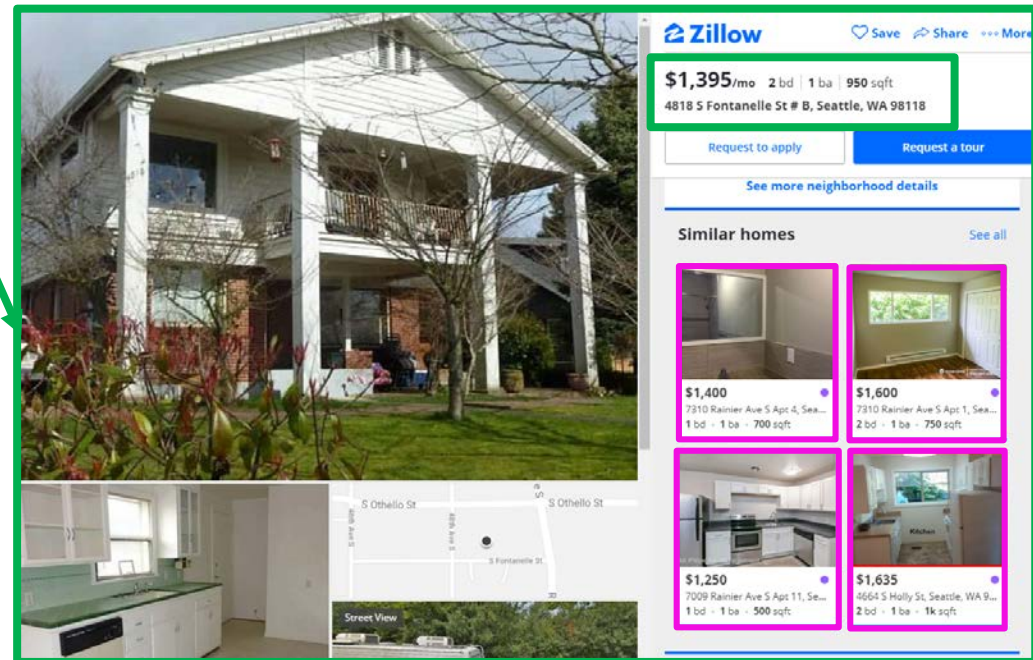
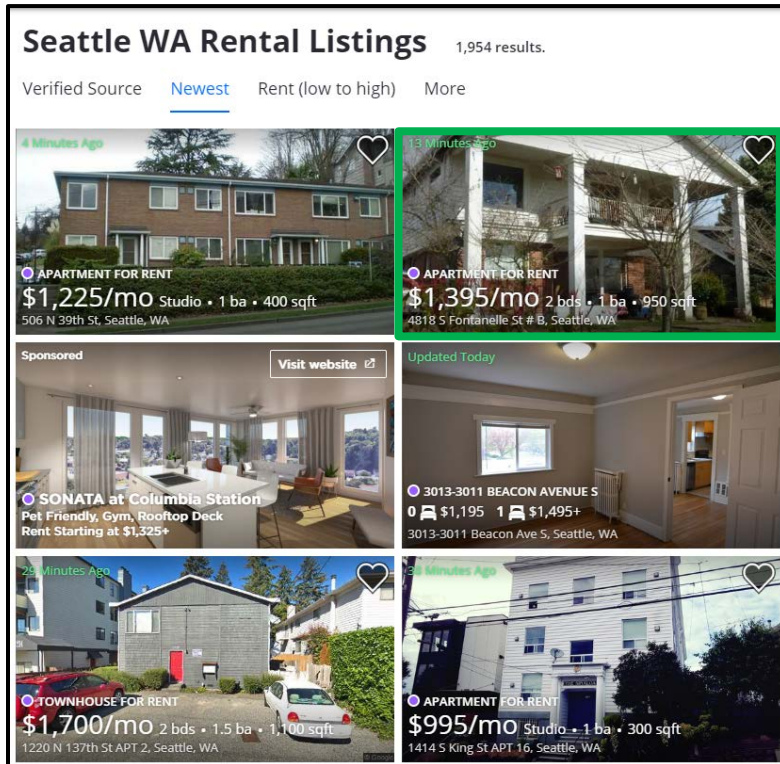
Property listing, Zillow, <https://www.zillow.com>.

**Associated advertisement:** “Instead of using user profiles to target advertisement, the resultant search result items from a search engine performing an Internet search are utilized. These search result items are associated with similar or related advertisements.” (4:56-60).

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# U.S. Patent 7,076,443 (Emens) – Claim 1

(a) identifying at least one search result item from a search result of said Internet search by said user;



Property listing, Zillow, <https://www.zillow.com>.

Property listing results for Seattle, WA, Zillow,  
<https://www.zillow.com>.



**Note:** Zillow searches for similar homes in its database based on attributes of the property listing result.

```
Request on 2019-04-16T17:58:49.075Z
```

General:

**Request URL:** <https://www.zillowstatic.com/hdp/63c8cde/async/for-rent-double-scroll.cf31f571.rev.js>

**HTTP Version:** http/2.0

**Request method:** GET

**Remote Address:** 143.204.142.117

Headers:

- Referer** [https://www.zillow.com/homes/for\\_rent/Seattle-WA/2122837754\\_zpid/16037\\_rid/47.814076,-121.975709,47.411826,-122.713852\\_rect/10\\_zm/](https://www.zillow.com/homes/for_rent/Seattle-WA/2122837754_zpid/16037_rid/47.814076,-121.975709,47.411826,-122.713852_rect/10_zm/)

```
.concat(N.variantFragment.definitions)),
loc:{start:0,end:1368,source:{body:''\n

fragment SimilarListingsForRent_property on Property {\n
  address {\n city\n neighborhood\n state\n zipcode\n}\n

  comps(count: 15, compType: "ForRent") {\n latitude\n longitude\n daysOnZillow\n
  homeStatus\n photoCount\n zpid\n hdpUrl\n bedrooms\n bathrooms\n
  livingArea\n price\n

    address {\n city\n state\n zipcode\n streetAddress\n}\n
    isNonOwnerOccupied\n

    photos(size: S, count: 1) {\n width\n height\n url\n}\n
    currency\n googleStaticMapSignedUrl {\n featureArea: "hdpCarousel"\n type:
  SATELLITE\n width: 400\n height: 215\n zoom: 16\n      }\n
    googleStreetViewImageSignedUrl {featureArea: "hdpCarousel", width: 400, height:
  215}\n      googleStreetViewMetadataSignedUrl {featureArea:
  "hdpCarousel"}\n      ...Variant_property\n
}

\n }
\n
\n
\n ',name:"GraphQL request",locationOffset:{line:1,column:1}
}
}
```

JavaScript of search for similar listings, Zillow,  
<https://www.zillow.com>.

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# U.S. Patent 7,076,443 (Emens) – Claim 1

(c) identifying said at least one associated advertisement from said repository having at least one word that matches said at least one search result item; and

**Note:** After performing a search for similar property listings based on the property listing result, Zillow identifies similar property listings that share at least one word with the associated property.

```
"data": {
  "property": {
    "id": "UHJvcGVydHk6MjEyMjgzNzc1NA==",
    "isFeatured": false,
    "postingContact": {
      "brokerName": null,
      "brokerageName": "PPS Homes, LLC",
      "name": "Bernard Smith",
      "photo": {
        "url": "https://photos.zillowstatic.com/h_i/ISpdn03xgk5e020000000000.jpg"
      }
    },
    "zpid": 2122837754,
    "city": "Seattle",
    "state": "WA",
    "address": {
      "streetAddress": "4818 S Fontanelle St # B",
      "city": "Seattle",
      "state": "WA",
      "zipcode": "98118",
      "neighborhood": "Brighton"
    }
  },

```

```
"comps": [
  {
    "price": 1400,
    "currency": "USD",
    "bedrooms": 1,
    "bathrooms": 1,
    "livingArea": 700,
    "address": {
      "streetAddress": "7310 Rainier Ave S APT 4",
      "city": "Seattle",
      "state": "WA",
      "zipcode": "98118"
    }
  }
]
```

```
"price": 1600,
"currency": "USD",
"bedrooms": 2,
"bathrooms": 1,
"livingArea": 750,
"address": {
  "streetAddress": "7310 Rainier Ave S APT 1",
  "city": "Seattle",
  "state": "WA",
  "zipcode": "98118"
}
```

```
"price": 1250,
"currency": "USD",
"bedrooms": 1,
"bathrooms": 1,
"livingArea": 500,
"address": {
  "streetAddress": "7009 Rainier Ave S APT 11",
  "city": "Seattle",
  "state": "WA",
  "zipcode": "98118"
}
```

```
"price": 1635,
"currency": "USD",
"bedrooms": 2,
"bathrooms": 1,
"livingArea": 1025,
"address": {
  "streetAddress": "4664 S Holly St",
  "city": "Seattle",
  "state": "WA",
  "zipcode": "98118"
}
```

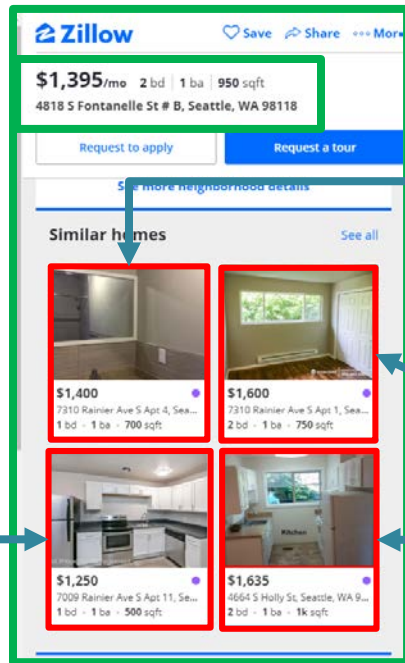
JSON with similar property listings, Zillow, <https://www.zillow.com>.



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# U.S. Patent 7,076,443 (Emens) – Claim 1

(c) identifying said **at least one associated advertisement** from said repository having at least one word that matches said **at least one search result item**; and



Property listing, Zillow,  
<https://www.zillow.com>.

```
"comps": [  
  {  
    "price": 1400,  
    "currency": "USD",  
    "bedrooms": 1,  
    "bathrooms": 1,  
    "livingArea": 700,  
    "address": {  
      "streetAddress": "7310 Rainier Ave S APT 4",  
      "city": "Seattle",  
      "state": "WA",  
      "zipcode": "98118"  
    }  
  },  
  {  
    "price": 1600,  
    "currency": "USD",  
    "bedrooms": 2,  
    "bathrooms": 1,  
    "livingArea": 750,  
    "address": {  
      "streetAddress": "7310 Rainier Ave S APT 1",  
      "city": "Seattle",  
      "state": "WA",  
      "zipcode": "98118"  
    }  
  },  
  {  
    "price": 1250,  
    "currency": "USD",  
    "bedrooms": 1,  
    "bathrooms": 1,  
    "livingArea": 500,  
    "address": {  
      "streetAddress": "7009 Rainier Ave S APT 11",  
      "city": "Seattle",  
      "state": "WA",  
      "zipcode": "98118"  
    }  
  },  
  {  
    "price": 1635,  
    "currency": "USD",  
    "bedrooms": 2,  
    "bathrooms": 1,  
    "livingArea": 1025,  
    "address": {  
      "streetAddress": "4664 S Holly St",  
      "city": "Seattle",  
      "state": "WA",  
      "zipcode": "98118"  
    }  
  }  
]
```

```
"price": 1250,  
"currency": "USD",  
"bedrooms": 1,  
"bathrooms": 1,  
"livingArea": 500,  
"address": {  
  "streetAddress": "7009 Rainier Ave S APT 11",  
  "city": "Seattle",  
  "state": "WA",  
  "zipcode": "98118"
```

```
"price": 1635,  
"currency": "USD",  
"bedrooms": 2,  
"bathrooms": 1,  
"livingArea": 1025,  
"address": {  
  "streetAddress": "4664 S Holly St",  
  "city": "Seattle",  
  "state": "WA",  
  "zipcode": "98118"
```

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# U.S. Patent 7,076,443 (Emens) – Claim 1

(c) identifying said at least one associated advertisement from said repository having at least one word that matches said at least one search result item; and

The diagram illustrates a search result matching process. A central Zillow 'Similar homes' section displays four property listings. Each listing is highlighted with a red border and has an arrow pointing to a larger, detailed view of that specific property listing on the Zillow website. The detailed views show the property's price, location, and overview.

**Property listing, Zillow, <https://www.zillow.com>.**

**Property 1 (Top Left):** \$1,400/mo, 1 bd, 1 ba, 700 sqft, 7310 Rainier Ave S APT 4, Seattle, WA 98118. Overview: Book a showing now! See this cushy unfurnished, 1 bedroom, 1 bath condo unit in Seattle, Washington. This 700-square-foot condo has 1 car on-street parking. Its well-ventilated and relaxing interior has tile/hardwood flooring, recessed lighting, and wide slider windows. The convenient, horseshoe-type kitchen has several fine cabinets and drawers for storage. Its

**Property 2 (Top Right):** \$1,600/mo, 2 bd, 1 ba, 750 sqft, 7310 Rainier Ave S APT 1, Seattle, WA 98118. Overview: Book a showing now! See this cozy unfurnished, 2 bedrooms, 1 bath condo unit in Seattle, Washington. This 750-square-foot condo has 2 car on-street parking. Its well-ventilated interior has tile/hardwood flooring, and wide slider windows. The kitchen in recessed lighting has several fine cabinets and drawers for storage. Its counters are granite countertop. It is also

**Property 3 (Bottom Left):** \$1,250/mo, 1 bd, 1 ba, 500 sqft, 7009 Rainier Ave S APT 11, Seattle, WA 98118. Overview: Modern Amenities. Urban Location. Sophisticated Style. - Cascade Court Apartments offers one-bedroom apartment homes featuring beautiful living areas that are a joy to come home to. Enjoy easy access to the light rail and bus lines. Perfect for commuters! These beautiful one or two-bedroom apartment homes are available in a variety of floor plans. All are freshly painted and cleaned, cable and internet ready. The kitchen is a delight with frost-free refrigerators, self-cleaning oven & electric range, disposal, and dishwasher. (RLNE4679182)

**Property 4 (Bottom Right):** \$1,635/mo, 2 bd, 1 ba, 1,025 sqft, 4664 S Holly St, Seattle, WA 98118. Overview: Clean Large (1025 sq ft) 2nd Floor. Close to Services. On Route 7 bus line Rainier Ave S & S Holly - Brighton Just completely refurbished! This 2nd floor, 1025 Square Foot 2 Bedroom, one bath apartment is rent ready! Large bedrooms, Dining area, and large Living room! with Picture windows throughout. New vinyl plank floors

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# U.S. Patent 7,076,443 (Emens) – Claim 1

(d) correlating said at least one associated advertisement with said at least one search result item.

**Note:** Zillow correlates the similar property listings with the selected property listing by listing the similar property listings as “comps” in the JSON file.

```
"data": {
  "property": {
    "id": "UHJvcGVydHk6MjEyMjgzNzc1NA==",
    "isFeatured": false,
    "postingContact": {
      "brokerName": null,
      "brokerageName": "PPS Homes, LLC",
      "name": "Bernard Smith",
      "photo": {
        "url": "https://photos.zillowstatic.com/h_l/ISpdn03xgk5e020000000000.jpg"
      }
    },
    "zpid": 2122837754,
    "city": "Seattle",
    "state": "WA",
    "address": {
      "streetAddress": "4818 S Fontanelle St # B",
      "city": "Seattle",
      "state": "WA",
      "zipcode": "98118",
      "neighborhood": "Brighton"
    },
  },
}
```

```
"comps": [
  {
    "price": 1400,
    "currency": "USD",
    "bedrooms": 1,
    "bathrooms": 1,
    "livingArea": 700,
    "address": {
      "streetAddress": "7310 Rainier Ave S APT 4",
      "city": "Seattle",
      "state": "WA",
      "zipcode": "98118"
    }
  },

```

```
    "price": 1600,
    "currency": "USD",
    "bedrooms": 2,
    "bathrooms": 1,
    "livingArea": 750,
    "address": {
      "streetAddress": "7310 Rainier Ave S APT 1",
      "city": "Seattle",
      "state": "WA",
      "zipcode": "98118"
    }
  },

```

```
    "price": 1250,
    "currency": "USD",
    "bedrooms": 1,
    "bathrooms": 1,
    "livingArea": 500,
    "address": {
      "streetAddress": "7009 Rainier Ave S APT 11",
      "city": "Seattle",
      "state": "WA",
      "zipcode": "98118"
    }
  },

```

```
    "price": 1635,
    "currency": "USD",
    "bedrooms": 2,
    "bathrooms": 1,
    "livingArea": 1025,
    "address": {
      "streetAddress": "4664 S Holly St",
      "city": "Seattle",
      "state": "WA",
      "zipcode": "98118"
    }
  },

```

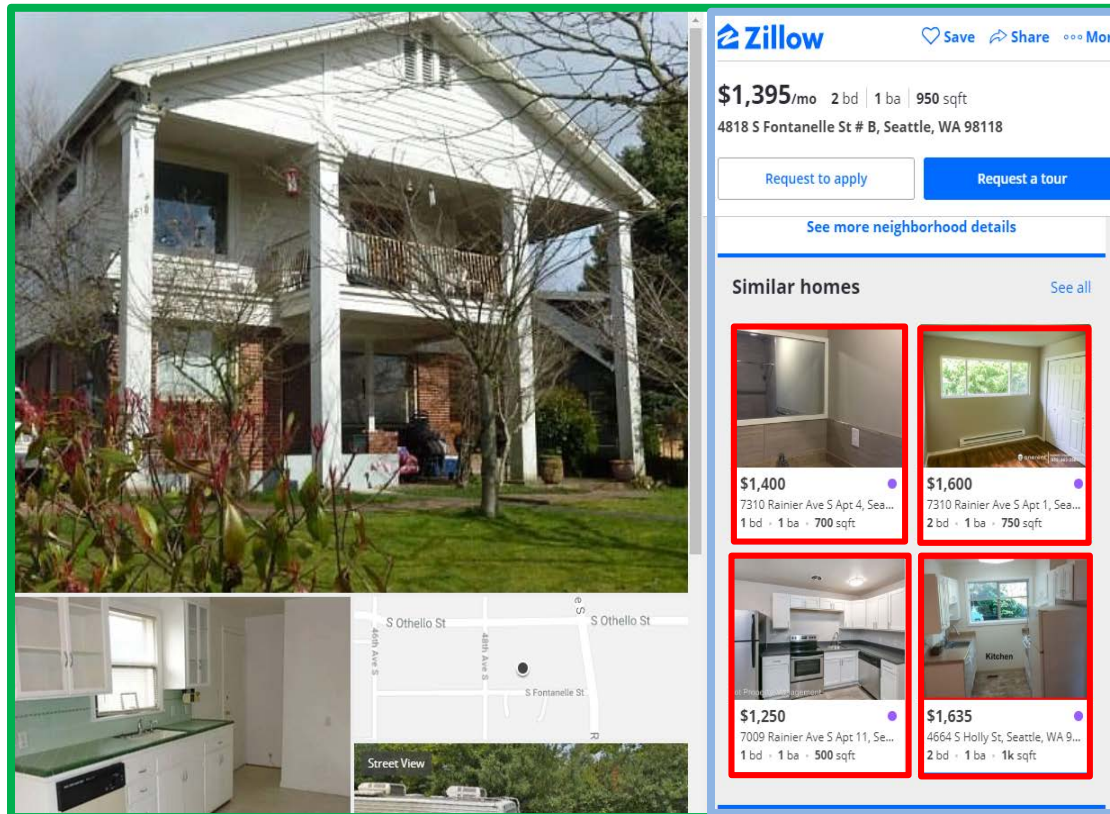
JSON with similar property listings, Zillow, <https://www.zillow.com>.

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# U.S. Patent 7,076,443 (Emens) – Claim 1

(d) correlating said at least one associated advertisement with said at least one search result item.

**Note:** Zillow correlates the similar property listings with the selected property listing by displaying them as “Similar homes.”



Property listing, Zillow, <https://www.zillow.com>.

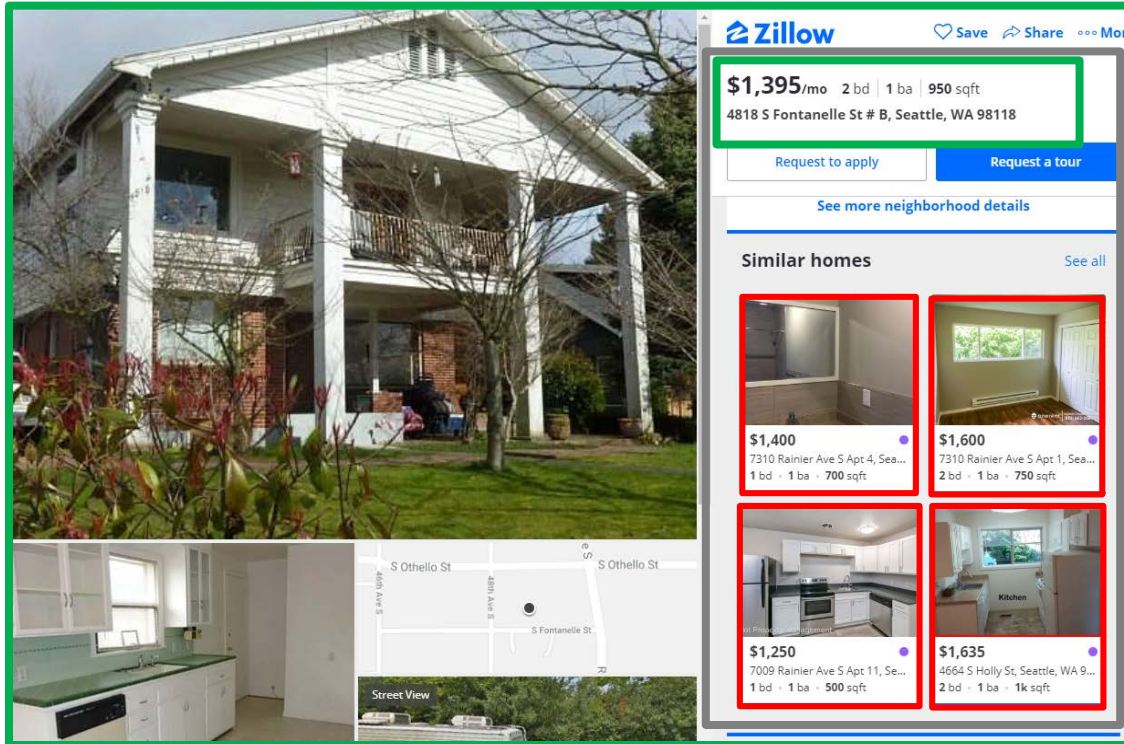


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# U.S. Patent 7,076,443 (Emens) – Claim 5

**5. The method of claim 1 further comprising designating said at least one search result item matched to said at least one associated advertisement for subsequent selection by a user.**

**Note:** Zillow designates the selected property listing for subsequent selection by displaying the similar property listings that allow a user to access the similar properties matched to the selected property.



Property listing, Zillow, <https://www.zillow.com>.

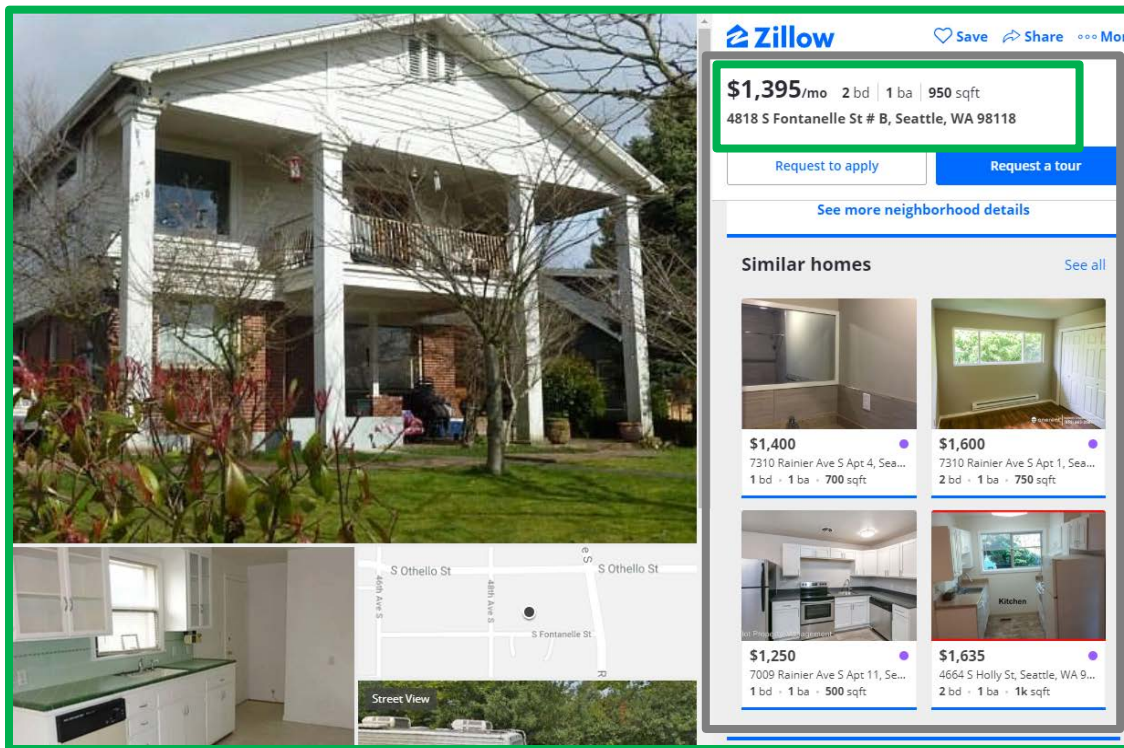


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# U.S. Patent 7,076,443 (Emens) – Claim 7

7. The method of claim 5 wherein designating **said at least one search result item** further comprises displaying a graphical user interface to said user.

**Note:** Zillow displays images of the similar properties which allow a user to access the associated property listings matched to the selected property.



Property listing, Zillow, <https://www.zillow.com>.